

Saving the Afrikamütze

Cap Preservation in the Long Term



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Cover graphic: Caps in musums. Clockwise from top left: the Royal Hampshire Regiment Museum (UK), the National Army Museum (NZ), the Soldiers of Shropshire Musum (UK) and Auckland War Memorial Museum (NZ). Photos: RHRM, Dal McGuirk, anon & AWMM

Analysing the Afrikamütze

This short essay comprises Chapter 14 of a proposed second edition of ASRP 8, “The *Afrikamütze* Database: a Guide to the Identification, Context and Interpretation of the German Army Tropical Peaked Cap, 1940–43”. Constructive criticism is welcome.

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Cap preservation in the long term

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How many of the several hundreds of thousands of German army tropical peaked caps manufactured during WW2 survive today is unknown. For this volume, I have studied 535 and know of (but have been unable to study in detail) another 50 or so. Small numbers from time to time refresh the collectors' market—caps long retained by veterans, or the families of veterans, or owned by collectors who for a variety of reasons (privacy, indifference etc.) have not shared details of them publicly. Nonetheless, the total number of surviving caps appears unlikely to be high, somewhere perhaps in the low thousands, with early, unmodified *Afrikamützen* now represented by hundreds of caps only; numbers, which owing to accidents, casual discard, wilful modification and "restoration", and the failure to look after caps properly, will certainly be declining. If we think the *Afrikamütze* important, therefore, and worthy of preservation, it is imperative that a strategy for this be set in place. In an ideal world, this would reconcile several potentially conflicting issues—principally, "what?", "who and where?", and "how?"; but also that of "preservation (maintaining the object in its existing condition) *versus* restoration (returning the object to something like its original condition)." Of these issues, most straightforward is "what?" There is a range of pre-existing protocols for the retention and preservation of other categories of material culture, including aspects of the recent material culture of war, which could readily be adapted to that of the *Afrikamütze* (e.g. Department of the Environment, 1990, annex 4; Schofield, 2005, chapters 3 and 4; Szmelter, 2013, table 1). "Who?" and "where?" are complicated by the private ownership of the vast majority of *Afrikamützen*, and a genuine conflict between the needs of display and education, and the requirements for long-term preservation. "How?" is primarily a technical issue. Perhaps most vexing is the conflict between "preservation" and "restoration", for it is as much an ethical as a practical issue, and as such problematical to resolve. Also essential of course would be a thorough inventory of the extent, whereabouts, nature and heritage potential of the surviving caps, for without such an inventory, objective decision-making about them would be impossible. The present volume and the associated database, with its register of 535 caps, constitute a contribution to the latter.

What should we save?

Once we know what there is to choose from, selecting objects to save is not difficult. In order to qualify, a heritage resource has to meet one or more of several standard criteria, which qualify it as "important" or "of

special interest". Typically these include authenticity and originality, rarity, representativeness or uniqueness, the possession of social value, and usefulness.

For the *Afrikamütze*, authenticity means a German Army tropical peaked cap made during WW2, while original means period-made or period-modified. Modern restorations and fakes, even very good ones, are neither authentic nor original. Rarity means few in number. If my estimates above are anywhere near correct, *Afrikamützen* generally are rare, but the relative abundance of individual variants differ. For example, caps by the manufacturers Robert Lubstein, Schlesische Mützenfabrik (Figure 1) and Carl Halfar are



Figure 1

Picked up by an Australian soldier at El Alamein, a 1942-dated model 1_OR cap by Schlesische Mützenfabrik with a black (engineers) soutache (Photo: author)

relatively abundant, as are caps with green (motorized infantry) soutaches (Figure 2), whereas caps by Gebrüder Alm and Emil Schebeler, and caps with golden-yellow and rust-red (reconnaissance) soutaches, are relatively scarce (Figure 3). Factory-made generals' caps, if they survive at all, are rarest of all. Representativeness and uniqueness are assessed in relation to the resource as a whole, and to any sub-groups—such as model variant or manufacturer—within it. Of interest as far as the *Afrikamütze* is concerned is the extent to which it is typical of, or stands out from a group. Is it a typical *Afrikamütze* or an atypical one; is it a typical of a particular model (e.g. my model 1_OR) or atypical of one; is it a typical Lubstein or an atypical one? Of social value means significant in terms of past events and as a repository of cultural



Figure 2

Perfect but relatively common 1940-dated model 1_OR cap by Carl Halfar with a lime green (motorised infantry) soutache. The cap's history is unknown (Photo: anon)



Figure 3

Rare (undated) model 1_OR cap by Emil Schebeler with a rust red (reconnaissance) soutache. The cap's history is unknown (Photo: anon)

memory. Privileged here will be caps with a known history (Figure 1), and caps, the nature of which is clearly indicative of one (Figure 2).¹ Finally, usefulness means useful for research, education, display etc. The first of these, potentially, includes every surviving cap; but as with other categories of material culture, total retention and preservation is not a realistic proposition (e.g. Hughes, 2023).

Were the caps reported on in this volume to be scored on these criteria—let’s say, on a scale of one to five—Ted Manning’s unissued Lubstein, referred to in Chapter 10 (see also Seager Thomas 2022, pp. 9–10), would perhaps score five for authenticity and originality, five for rarity (because of its unusual insignia attachment and under peak stitching), only three for representativeness, five for social value (because of its oral history) and three for usefulness (20 total); whereas Hans Höller’s stripped “Lago”, discussed in the same chapter (*ibid.*, pp. 4–6), although also scoring high for authenticity and originality (four) and social interest (because of the combination of both its oral and apparent history) (five), would receive much lower scores for rarity (two), representativeness (three) and usefulness (two) (16 total). If there was a choice between preserving the Lubstein or the Lago, therefore, it would be the former that was preserved. The concepts of “importance” and “special interest”, both of which are highly subjective, would of course allow for a degree of interpretative flexibility in this system.

Contested heritage?

In whose hands should the *Afrikamütze* reside? Currently the vast majority of *Afrikamützen* are in the hands of private individuals, mostly collectors. A few only have been acquired by museums, most of these random gifts from veterans or the families of veterans. (A notable exception to this is the recent acquisition by [REDACTED]—at a discounted price—of a major regional collection). This has implications for the long term survival of the cap for, although overlapping in places, the imperatives of these two stakeholder groups are essentially different.

With some justification on both sides, museum collectors and museum professionals are wary of each other. Collectors of the material culture of war *know* that museum displays are full of unacknowledged reproductions and *suspect* the surreptitious removal of authentic material from them. They are also rightly offended by the opprobrium heaped upon them by the academic establishment (Chapter 1; Seager Thomas, 2022, p. 1), with which many museum professionals identify, and by their categorisation as lay or nonprofessional and the attendant assumption that their needs and views count for less than those of the museum professional. Museum professionals in turn remain jealous of their special role as custodians of heritage and

1 Fakes and restorations also have a social value (Seager Thomas, 2015, p. 21), but it is a different one to that of the *Afrikamütze*, and were any to be “saved”, it would be in a different context to that under consideration here

suspicious of the collector's acquisitional paradigm(s), and fear having their time wasted—as they see it—by bothersome amateurs. In this they deny the legitimacy of the collector's interest, deny the collector's enthusiasm, knowledge and commitment. The fact is, however, that both have roles, different but complimentary, to play in heritage preservation—including that of the *Afrikamütze*. This is acknowledged by the collector when he or she visits the museum, and by the museum curator when he or she employs the former (not infrequently at the expense of the paid professional) as volunteer labour.

The principal roles of the museum in the curation of material culture are education (to promote knowledge through display, research and by opening its collections to the interested public), and preservation (American Alliance of Museums, 2022; Arts Council England, 2018; Imperial War Museum, 2020, p. 3), roles which are irreconcilable since the former entails exposing material to threat, and the latter, sequestering it indefinitely. The museum's view is that its responsibilities are as much to posterity as to the present, and that in order to optimise knowledge over time access needs to be restricted, a museological paradigm which meshes comfortably with practical necessity. But in most cases it is not "posterity" *per se* for which the museum preserves it, not your or my lay children or grandchildren, but a privileged few who can satisfy its access criteria. Basically the museum privileges a particular stakeholder community with the result that probably *fewer*, not *more* people see the material over time. The museum and its collections are also vulnerable to financial troubles² and to fashions in "retention value" (for which read "political correctness" and the "rationalisation of space"); and, since the numbers of institutions that will accept any particular category of material culture are few, it also tends to concentrate it, making it difficult to access for many, while putting it at greater risk of catastrophic destruction. A museum, even a major national museum, therefore, is not necessarily the best place, and certainly not the only place to preserve the *Afrikamütze*.

Individual collectors collect for many more reasons, some academic, some psychological, but all fuelled by personal interaction with the collected object(s). For many who collect the material culture of war, not least amongst these is an abstract desire to possess a piece of the past, and through it, vicariously, to involve themselves in that past (Belk, 2001, chapter 3; Muensterberger, 1994, p. 15). Their role as curators is incidental to this. However, without the commitment of the collector, many of whom have invested huge amounts of time in researching it, seeking it out and preserving it, much of the material culture of war that exists today would have been discarded. Additionally, by placing material in the community, the collector renders it less vulnerable to catastrophe, and perhaps generates more interest and more knowledge than would curation in a museum cellar. The collector, therefore, would appear to be the ideal curator. But no. The collector, too, has issues and priorities, and in some cases these are incompatible with long

term preservation. For the *Afrikamütze*, examples include frequent handling and display, a recurrent priority for the collector; the restoration of caps to states which belie their history and potentially distort the record—because the individual collector cannot afford an original, or because he (or she) wants to complete a pre-existing set; and the potentially destructive turn-over of material as collections are upgraded.

So in whose hands should the *Afrikamütze* reside? How would the position of caps targeted for preservation change? The straight answer to this question is “it would not.” I would like to see more in museums, either bought by these or donated or bequeathed to them, but the reality is that the *Afrikamütze* is now too valuable an object for this. For the most part, museums cannot afford to buy them and very few collectors will give or bequeath them away; and most therefore will remain within the collecting community. The best that can be done is to “list” or “schedule” them as important and worthy of preservation, which will hinder their surreptitious alienation, highlight the *nature* of their importance as a heritage resource and raise the cachet of the listed cap, thus providing an incentive to those able and willing to treat caps and their histories properly, and a disincentive to those who would mistreat them.

The best museums and the best collectors can be very good, the former because of their ability to mount useful—large, imaginative and influential—exhibitions, and also because of their commitment to look after material (albeit in restricted quantities) in the long term, the latter because of the way they research their collections in detail and freely, and widely, share their knowledge of them, and because of their ability, collectively, to curate large amounts of material. It is in these ways that, as curators, the museum and the collector compliment each other. But both could be better. As far as the *Afrikamütze* is concerned, one way to achieve this would be for the two to adopt a common strategy for its preservation, such as that outlined here. Were this is possible, the *Afrikamütze* would have a much improved chance of survival in the long term.

Preventative conservation

The *Afrikamütze* consists of up to six different materials. Cotton was used for the body of the cap. Cotton and rayon were used in its insignia. A hard cardboard or faux leather was used to stiffen the peak. Leathercloth, most likely early PVC, was used in the sweatbands of later caps. Metal—zinc and steel—were used for the eyelets along with a vitreous enamel with which the exterior of these was frequently coated. The first five of these are variously threatened by light, environmental pollution, damp, microorganisms, physical action and animals (insects and rodents), by themselves or interacting with each other over time. The damage caused by these *cannot* be undone. It is

2 A British regimental museum in Winchester is reported to have sold three *Afrikakorps* tunics when strapped for cash (Heinz, 2018)

necessary therefore to prevent it in the first place. The only way to do this in the long-term—irrespective of type—is to remove the threat altogether: in the case of an *Afrikamütze*, by mothballing it, shutting it away permanently in a controlled environment. But as noted above such an approach is antithetical, both to one of the key roles of museums, and to many collectors. What we can do, however, is stabilise the threat at a relatively non-harmful level.

Cotton is a sturdy fibre and can last well but, like all natural fibres, it begins to deteriorate from the moment it is harvested and nothing made from it—be this a medieval tapestry or the *Afrikamütze*—will last forever. The principal threats to it are: ultra violet (UV) light; atmospheric and contact pollution, things like abrasive dust, salt and sulphur dioxide; damp; and physical stress, caused by washing, handling and poor storage and display. UV light causes fading and alters the structure of cotton fibres, reducing their breaking strength, and thus accelerates the disintegration of any fabric comprising them. Gritty dust physically abrades them. Salt recrystallizes in them, likewise physically damaging them. Sulphur dioxide alters their structure. Damp promotes the growth of moulds, which stain and rot them



Figure 4

A badly stored late model (4_OR) cap by Carl Halfar. The cotton body of has been stained by mould and the rayon cockade grazed upon by silverfish (Photo: Erik Semenovs)

(Hamlyn, 1990; Merritt, 1993) (Figure 4). Stress caused by the combination of saturation and agitation during washing, rough handling (such as turning the cap inside out), and even—in the case of the *Afrikamütze*—the cap's own weight, for example pressing on its peak, will weaken a fabric, tearing

the fibres comprising it, causing permanent breakdown and / or distortion. Fluctuations in environmental moisture and temperature cause fibres to swell and contract, also causing physical damage.

The simplest and cheapest way to prevent damage by UV light is to house the cap in a display case, which can be covered or closed when not being viewed, an expedient which also inhibits the deposition of atmospheric pollutants. Alternatively UV can be filtered out or a light source used, such as old fashioned incandescent light, which does not emit it. Contact pollution can be controlled by cleaning the hands before handling and the use of acid-free materials in packing and display. Damage caused by abrasive dust can be checked by limiting handling as much as possible, and the dust itself removed by gentle vacuuming of the cap through a mesh, which will limit abrasion and suction damage (Finch and Putnam, 1985, pp. 59–60). Wet cleaning to remove dust and other pollutants, however, is not recommended because of the stress resulting from it, because if done incorrectly, it can itself introduce damaging precipitates, and because of the threat posed by it to important theatre-acquired patinas (cf. *ibid.*, pp. 61–64). Damp and fluctuations in moisture and temperature are best inhibited by air conditioning. Damp can also be inhibited by avoiding airtight, particularly plastic containers (which when new can seal damp in) and, in closed environments, such as display cases or rooms, the use of silica gel or dehumidifiers. Finally, physical stress must simply be avoided.

Rayon is vulnerable to the same threats as cotton, and can be treated in much the same way. It is worth noting, however, that for it, some threats are enhanced. Early rayon, for example, has a low wet strength, which renders it particularly vulnerable to damage during washing (Gamper, Thompson and Quye, 2013). It is also a favourite snack of the silverfish and other polysaccharide (cellulose, starch) eating insects, which graze the surface of the material (Figure 4). These latter thrive in dark damp environments, and can be controlled either by physical exclusion or by lowering humidity levels to something similar to that required for the prevention of mould development (c. 60% humidity).

The peak of the *Afrikamütze* comprises a hard, resilient cardboard, in some cases resembling *Preßstoff* (literally pressed stuff), a faux leather which in WW2 Germany substituted for leather in a variety of military roles. Such materials need to be kept dry and not manipulated, as these will cause them to delaminate and crack, while damp will also encourage the growth of mould, and the problems associated with this.

Of what the leathercloth used in the sweatbands of later caps is uncertain but most likely it is *Igelit*, an early plasticised PVC (see Kaufman, 1968; Klein, 1945, pp. 152A–152C). When plasticised PVC deteriorates, the migration of the plasticiser causes it to become sticky, harden, shrink and crack, and it turns black (Shashoua and Skals, 2004, p. 60)—all features seen in the leathercloth comprising the sweatbands of individual *Afrikamützen* (see Figure 5). The



Figure 5

The sweatband of a late RB-numbered cap fashioned from cotton plain weave and ?PVC *Igelit* leathercloth. The formerly tan leathercloth has turned black staining the cotton (Photo: Jonathan del Collo)

only other candidate is a cellulose-nitrate based material analogous to the British leathercloth *Rexine*. It too hardens, cracks and discolours (yellows) when it deteriorates but it has not been reported to turn black. Owing to their inherent instability, neither of these materials can be preserved for as long as the other materials discussed here. The migration of plasticiser in PVC, however, has been slowed experimentally by cooling and enclosing it in something non-adsorbent, such as glass (Shashoua, 2008, pp. 201–203), while the degradation of plastics generally is thought to be inhibited by an oxygen-free environment, which can be achieved by enclosing it with an oxygen absorber (Shashoua, 2014, pp. 13–14). It is also better not to flex it, as this will accelerate the detachment the hardened PVC from its backing cloth. As for *Rexine* and other cellulose-nitrate based leathercloths, there is currently no authoritative advice, but cellulose-nitrate products generally need to be kept dry, cool (they can spontaneously combust at temperatures over 50°C), and away from UV light and alkaline materials, such as acid-free paper (Morgan, 1991, p. 22; Williams, 1994, p. 2). A build-up of decomposition products, which accelerates their breakdown and can corrode associated metals, can be checked either by ventilation or enclosing them with a nitrogen oxide adsorbent such as activated carbon (Shashoua, 2008, pp. 196–97; Williams, 1994, p. 2).

In the presence of moisture and oxygen both steel and zinc corrode. Steel, however, corrodes more quickly, and because its corrosion product,

rust (hydrated iron oxide), flakes, the underlying metal is continually exposed, and the corrosion continues. Environmental contaminants such as salt, which in solution acts as an electrolyte, accelerates this process. Rusting can only be checked by removing the moisture and / or the oxygen that fuels it. Corroding zinc by contrast, when exposed to air, develops a stable coating (grey zinc oxide or white zinc carbonate), which prevents corrosion of the underlying metal (Figure 6). Powdery corrosion products known as white rust (zinc hydroxide



Figure 6

Afrikanutze eyelets with stable zinc oxide (left) and zinc carbonate coatings (Photos: MST)

or hydrated zinc carbonate), seen on the eyelets of some caps, develop either when this coating has failed to develop—because the surface of the metal has been insufficiently exposed to the elements necessary for its formation—or when an existing coating has been compromised by damp or exposure to an electrolyte, such as salt water or sulphuric acid (see Barclay, 2007, p. 1). These types of corrosion can also be checked by a dry environment. Once this has been achieved the physical removal the white rust will allow the development (or redevelopment) of a protective coating. Provided the cap is then kept dry, washing—sometimes in order to remove corrosive pollutants—should be unnecessary. Zinc is also vulnerable to damage from chlorides in moisture on human fingers, contact with which can result in the permanent etching of the metal (*ibid.*).

Which—if any—of these measures are employed will of course vary, depending on the locale, the differing needs and resources of the cap's curator and the particular cap. Most come at a cost, both financial and—in many cases—to other requirements for effective long-term cap preservation. Thus

the costs of housing the cap in a display case include poor air circulation and—if the air is warm and damp—mould growth; the cost of a dehumidifier, the fanning of environmental pollutants; the cost of not washing a cap, potential ongoing damage caused by the failure to remove destructive contaminants, and so on. Conservation science is no magic bullet. That said, the best advice for most *Afrikamützen* is straight-forward enough. Ensure that your cap is displayed or stored in a way that will prevent deterioration. Keep it supported. Do not leave it in the sun. Do not—as I have seen done—display it on a degrading copy of *Signal Magazine*. Do not leave it exposed on a shelf in your sitting room. Do not store it in the attic or the cellar—*above all, keep it dry*. Do not handle it with dirty hands and do not manipulate it unnecessarily and do not let your friends try it on. Do not allow the degrading PVC to come into contact with other materials to which it might stick, or which it might stain. For most caps, occasional *careful* handling is fine, but that is all.

Note: the foregoing is a generalisation of what is a highly technical subject. Fuller but accessible analyses of the threats to the materials comprising the *Afrikamütze* and the methods used to inhibit these can be found in the following books: for textiles: Finch and Putnam, 1985; for metals: Selwyn, 2004; and for plastics: Shashoua, 2008.

The ethics of restoration

Repeatedly I have criticised restoration on the grounds that, unrecorded, it threatens the integrity of the record and because it privileges particular aspects of history over others (Figure 7). However, my view is not universal, not amongst collectors, nor amongst museum professionals. Visit an online militaria forum or a war museum, and you will find everything from the unrestored, through the partially restored, to the wholly restored; or—depending on your perspective—from the preserved or saved, through the mutilated, to the completely destroyed. The reasons for this array vary but most relate to either to the needs of display, or money. The unmodified object is too fragile for display; the individual collector (or museum) cannot afford an original; they want to complete a themed set; restoration is needed in order to show off the object's original nature, function, and / or sensory attributes (size, sound, smell); one history is perceived to be more important or interesting and therefore more marketable (to the collector, the tourist, the educator, the school party) than another.

There are existing protocols baring on the conservation and restoration of heritage resources (e.g. American Institute for Conservation, 1994; Pye, 2001, p. 31; Sease, 1998 etc.), which could usefully be applied to that of the recent material culture of war.

The nature, substance and state of the object to be restored, and of all—past and present—interventions carried out must be fully documented. Traces of any past restorative interventions must be removed. The greatest possible fraction of the object's original substance must be retained and the original

substance and appearance of the object rendered as closely as possible. Interventions must be both detectable (if not necessarily immediately visible), reversible, and, irrespective of cost, carried out to the highest possible standards. They must be carried out in a way which will prevent future damage. Above all, work must only be carried out by competent practitioners. Were these protocols adhered to by the curators of the *Afrikamütze*, they would resolve many of the issues I have with its restoration. Individual caps would lose their psychological impact as wholly unmodified historical palimpsests, yes, but the threat to the record posed by unacknowledged restoration would be lifted, and as much as possible of what survived of their authentic period fabric, and the meaning(s) inherent in this, would be retained. But very often they are not.



Figure 7

Twice restored cap? An undated officers' cap by Robert Lubstein with a green (motorised infantry) soutache and non-standard officers' insignia (the only other cap on which I have only seen these insignia was a reproduction) restored with standard tropical insignia. The earlier restoration—if that is what it was—was discussed online as a period upgrade, the cap's owner having introduced the cap as the souvenir of a GI who sent it home in a German stick grenade box. The later restoration mixes hand stitching and apparent machine-stitching in a non-standard way for the manufacturer, while the replacement eagle is probably too early for the cap (Photos: anon & Lee Greer)

For many collectors, restoration is an integral part of their hobby. They enjoy researching the objects that they own, seeking out the missing parts, and restoring them to as close an approximation to the original as is possible given their knowledge, financial resources and the material and parts available to them at the time. Of course an unmodified original would be preferred but in its absence, restoration, even if imperfect, is taken for granted. As for museum professionals, restoration by them of at least some categories of the material culture of war is also taken for granted—the many restored aeroplanes and tanks in private but also state / institutional military museums are the obvious examples (e.g. in the UK's Imperial War Museum)—while the museum has an obligation to display and in some cases this may *necessitate* restoration. The real issue therefore is not “restore” or “not restore”, or “display” or “not

display", but why, what and how to restore and display, and in doing this how best to realise a particular object's potential as an historic object. What is more important: the object as time brought it down to us, as I believe, or as close an approximation to the original as is possible; and what anyway is "original", and how do you reconcile exhortations, on the one hand, to retain the greatest possible fraction of the object's original substance, and on the other, render the original appearance of the object as closely as possible? For the *Afrikamütze*, I define "original" as period made or period modified. But what do I mean by "period"; when exactly does "period" end? These are matters of fine judgment, and not something upon which one can safely impose binding protocols. Certainly the views of no single stakeholder group self-evidently trump those of any another.

*

Ultimately how and the extent to which the *Afrikamütze* is preserved comes down to the question, "Who's history is it?" To a significant extent, and with some justice, the owners of individual *Afrikamützen* believe it to be *theirs*. They own these things after all. Some museum professionals consider it to be that of "the public", the individuals and the parties that pass through their doors day by day; while others—sometimes honestly, sometimes dishonestly—assign it to posterity. Others, also with some justice, are concerned above all with perceived moral and political issues surrounding material associated with—in this case—war and the Third Reich (Chapter 1). The interests of these different stakeholder groups are of course irreconcilable. How therefore do we fix upon a strategy for the *Afrikamütze*'s preservation? How do we decide what is, and what is not, to be preserved, and how? One stakeholder group, posterity, cannot vote, so that there is no possibility of a democratic solution to the problem. As we have seen, there are also challenging economic and practical realities imposed by the physical nature of the *Afrikamütze*. If we wanted to save everything, we could not. Given the divergent views of the *Afrikamütze*'s stakeholders, consensus is also probably out of the question. We must reconcile ourselves therefore to the fact that its preservation comes down to the individual and that while some will be preserved, many others will not, and that those that are preserved will be preserved in a variety ways and contexts, of which some will be found wanting both in terms of their efficacy and by other stakeholders. People like me can inform and encourage. In some contexts, the practical, inexpensive and uncontroversial—such as thorough recording, and the "listing" of them as worthy of preservation—could be insisted upon, but very little else. Collectors and museum professionals alike could unilaterally put their hang-ups, their personal and professional agendas, aside and address the issue squarely. Otherwise the result will be that one day, perhaps quite soon, the *Afrikamütze* will be as rare as any other early textile, and the priceless point of psychological contact it currently provides between the present and the past lost for good.

REFERENCES

- AMERICAN ALLIANCE OF MUSEUMS** (2022) *Core Standards for Museums*. Arlington, VA: American Alliance of Museums.
- AMERICAN INSTITUTE FOR CONSERVATION** (1994) *Code of Ethics and Guidelines for Practice*. Washington DC: American Institute for Conservation.
- ARTS COUNCIL ENGLAND** (2018) "Accreditation standard", *Accreditation Scheme for Museums and Galleries in the United Kingdom*. London: Arts Council England.
- BARCLAY, R.** (2007) "Care of objects made of zinc", *Canadian Conservation Institute Notes*, 9(9), pp. 1–4.
- BELK, R.** (2001) *Collecting in a Consumer Society*. London: Routledge.
- DEPARTMENT OF THE ENVIRONMENT** (1990) *Planning Policy Guidance Note 16: Archaeology and Planning*. London: HMSO.
- FINCH, K.** and **PUTNAM, G.** (1985) *The care & preservation of textiles*. London: Batsford.
- GAMPER, G., THOMPSON, K.** and **QUYE, A.** (2013) *Viscose rayon: an absorbing problem. An investigation into the impact conservation wet cleaning treatments have on historic woven viscose rayon fabrics; with a supplementary analysis of current techniques for identifying man-made fibres*. Glasgow: Enlighten Publications, University of Glasgow.
- HEINZ, R.** (2018) *Tropical caps* [email to the author].
- HUGHES, P.** (2023) "England's archaeological history gathers dust as museums fill up", *BBC News: Science and Environment* [online]. Available at: <https://www.bbc.co.uk/news/science-environment-64707488>
- IMPERIAL WAR MUSEUM** (2020) *IMW Corporate Plan 2020–25*. London: Imperial War Museum.
- HAMLIN, P.** (1990) "Talking rot... and mildew. Why micro-organisms attack textiles and what can be done to prevent this happening", *Textiles*, 19(2), pp., 46–50.
- KAUFMAN, M.** (1968) *A History of the Chemistry and Industrial Production of Polyvinyl Chloride*. PhD thesis. London: Imperial College London.
- KLEIN, G.** (1945) "Plastics in Germany, 1939-1945", *Modern Plastics*, pp. 152A–152P.
- MERRITT, J.** (1993) "Causes, detection, and prevention of mold [sic] and mildew on textiles", *Conserve O Gram*, 16(1), pp. 1–3.
- MORGAN, J.** (1991) *Conservation of Plastics: An Introduction to their History, Manufacture, Deterioration, Identification, and Care*.

London: The Plastics Historical Society and The Conservation Unit of the Museums and Galleries Commission.

- MUENSTERBERGER, W.** (1994) *Collecting, an Unruly Passion: Psychological Perspectives*. Princeton, NJ: Princeton University Press.
- PYE, E.** (2001) *Caring for the past : issues in conservation for archaeology and museums*. London: James & James.
- SCHOFIELD, J.** (2005) *Combat Archaeology: Material Culture and Modern Conflict*. London: Duckworth.
- SEAGER THOMAS, M.** (2015) "Faking the Afrikakorps: contextualising the manufacture and trade in imitation Afrikakorps material culture", *Artefact Services Research Reports*, 3, pp. 1–28.
- SEAGER THOMAS, M.** (2022) "Uncle Herbert's Africa cap: *Afrikakorps* uniforms, artefact biographies and the social meaning(s) of the material culture of war", *Artefact Services Research Reports*, 11, pp. 1–23.
- SEASE, C.** (1998) "Codes of ethics for conservation", *International Journal of Cultural Property*, 7(1), pp. 98–115.
- SELWYN, L.** (2004) *Metals and Corrosion: A Handbook for the Conservation Professional*. Ottawa: Canadian Conservation Institute.
- SHASHOUA, Y.** (2008) *Conservation of Plastics*. London: Routledge.
- SHASHOUA, Y.** (2014) "A Safe place: storage strategies for plastic", in *The Conservation of Plastics, Conservation Perspectives*, GCI Newsletter, 29(1), pp. 13–15.
- SHASHOUA, Y.** and **SKALS, K.** (2004) "Development of a conservation strategy for a collection of waterproofed military uniforms", *The Conservator*, 28, pp. 57–65.
- SZMELTER, I.** (2013) "New values of cultural heritage and the need for a new paradigm regarding its care", *CeROArt* [online]. Available at: <http://journals.openedition.org/ceroart/3647>
- WILLIAMS, R.** (1994) "Display and storage of museum objects containing cellulose nitrate", *Canadian Conservation Institute Notes*, 15(3), pp. 1–4.



Figure 00

Fake cap with insignia identical to those used on the Lubstein shown in Figure 7 (Photo: anon)

